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AUTHOR Leitner, David; Ingebo, George
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ABSTRACT

Helping One Student To Succeed (HOSTS) is a nationally validated Education Consolidation and Improvement Act Chapter I exemplary program adopted by 24 schools in the Portland (Oregon) School District. The HOSTS program has operated in three schools since 1979-80, 17 more since 1981-82, two more since 1982-82, and two more since 1983-84. It is designed to help low performers in grades 2 through 8 learn to read by providing individualized instruction through the use of volunteer tutors. Diagnostic, prescriptive, and instructional procedures were specified by program guidelines and were essentially the same for all schools. The HOSTS program included 758 students from kindergarten through grade 8, and 906 tutors (community members, college students, high school students, cross-age students, and teaching staff and aides). A questionnaire on the use of computers in HOSTS, particularly for data management, was sent to all 23 HOSTS coordinators in the spring of 1984; the responses from 22 were analyzed. An overwhelming majority of the program coordinators indicated that the computer facilitated better use of their time and provided other benefits outside simple data management. Taken together, evaluation data for the 1983-84 year indicate that HOSTS students' reading gains are greater than those of all student groups at the same grade levels district-wide. The use of cross-aged student tutors appears to be a particularly effective HOSTS strategy. Twenty-one statistical data tables are included. (TJH)

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1983-84 EVALUATION REPORT

HOSTS PROGRAM IN THE PORTLAND PUBLIC SCHOOLS

Research and Evaluation Dept.
Portland Public Schools
Portland, Oregon
Walter E. Hathaway, Director

David Leitner
George Ingebo

October 1984

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HOSTS

"HELPING ONE STUDENT TO SUCCEED"

INTRODUCTION

HOSTS is a nationally validated Chapter I exemplary program adopted by 24 schools in the Portland School District. It has operated in three schools since 1979-80, 17 more since 1981-82, two more since 1982-83, and two more since 1983-84. Twenty-two of the 24 schools are Chapter I schools and adopted HOSTS as their Chapter I reading project. The two non-Chapter I schools also used HOSTS as supplemental reading instruction for low performing students, but supported it by general fund monies.

HOSTS was designed to help low performers learn to read by providing individualized instruction on a one-to-one basis through the use of volunteer tutors. The diagnostic, prescriptive and instructional procedures were specified by program guidelines and were essentially the same for all schools. HOSTS students were tested individually by the HOSTS teacher at the beginning of the year with an individual reading inventory (Silvarolli or John's). Results from the individual reading inventory were used to place students at the proper test level in the Fountain Valley Developmental Skills Test which identified individual skill deficiencies, and to identify the students independent, instructional and frustration reading levels. The HOSTS Survey of Developmental Tasks was administered to students who scored below the range of the Fountain Valley. Results from the tests were keyed into a computer which ran software designed to print long-range lesson plans based on test scores, the same procedure as teachers used in previous years. Teachers wrote individual daily lesson plans based on the long-range prescriptions from the computer. The daily lesson plans were implemented by trained volunteers under the direction of the teacher. Usually, students were instructed in two objectives per session and continued in an objective until mastery was achieved which was determined by informal testing or by administering specific portions of the Fountain Valley. HOSTS students received instruction for 30 minutes a day, four days a week from a tutor. Testing and teacher planning was scheduled for the fifth day. Students were tested at mid-year and at the end of the year using the individual reading inventory to measure progress and to determine if students retained those skills that were mastered.

HOSTS CHARACTERISTICS IN PORTLAND SCHOOLS

Student Selection

Chapter I eligibility requirements (i.e., a P score of 43 or below and/or teacher judgment) were used for selecting HOSTS students in the 22 Chapter I schools. Additional criteria were established at 12 of the 22 Chapter I schools who had the choice of placing students in either HOSTS or other Chapter I instructional programs. Schools used different criteria such as selecting low Chapter I students, high Chapter I students, ones who could best benefit from one-to-one instruction, those who had adequate language ability, or based on scheduling. One of the two non-Chapter I schools also selected students based on Chapter I selection criteria while the other school selected students based on Special Education criteria. Thus, overall the type of student selected for HOSTS met Chapter I eligibility requirements.

Grades Served and Number of Students

The HOSTS program served students in grades K-8 with almost all students in grades 1-5 (Table 1). One school served kindergarten students, while three schools served students above grade 5. A total of 758 students were reported by schools as having received HOSTS services during the year.

Staff

A total of 24 teachers (12.25 F.T.E.) and 27 aides (6.65 F.T.E) staffed the HOSTS program (Table 2). Each school HOSTS program was staffed by a certified teacher who served as HOSTS coordinator. The coordinator was responsible for testing students, inputing data into the computer to produce long-range individual prescriptions, writing daily lesson plans, and supervising aides and tutors. Coordinators, with one exception, were assisted by one to three aides, depending upon the size of the program.

Staff Training

The HOSTS Corporation provided four days of training for teachers and aides at the beginning of the school year. In addition, the PPS District HOSTS coordinator, who was certified as a HOSTS trainer, spent a half-day in each school during 1983-84. The purpose of the school visitations was to check compliance with expected HOSTS program guidelines and to provide technical

TABLE 1

HOSTS CHARACTERISTICS

SCHOOLS	GRADES	NUMBER OF STUDENTS	NUMBER OF TUTORS	TYPE OF TUTOR: COMMUNITY MEMBER	COLLEGE STUDENT	HIGH SCHOOL STUDENT	CROSS-AGE STUDENT	TEACHING STAFF AND AIDES
Abernethy	2-5	21	32	19	--	--	13	--
Ball	2-3	20	25	17	2	--	--	6
Beach	3-5	30	46	24	--	--	18	4
Boise	1-4	57	61	--	--	--	61	--
Creston	2-5	24	19	16	--	--	1	2
*Edwards[1]	2-5	18	13	10	--	--	3	--
George	2-3	44	90	23	--	--	62	5
Grout	2-5	42	31	16	--	1	10	4
*Hollyrood	1-3	18	24	16	--	8	--	--
Humboldt	2-3	16	14	8	2	--	--	4
James John	2,3,6	23	62	10	--	--	50	2
Kenton	2-5	25	--	--	--	--	--	--
King	2-5	48	48	17	9	--	11	11
Lane	2-3	33	32	29	--	--	--	3
Lent	3-8	22	41	11	--	--	28	2
Marysville	2-8	48	55	28	--	--	21	6
Rice	2-4	18	16	9	5	--	--	2
Richmond	1-5	32	63	20	--	--	38	5
Rieke	2-5	12	31	20	--	--	8	3
Sabin	1-5	52	36	8	--	--	7	21
Scott	2-5	47	40	15	3	--	15	7
Sitton	2-5	34	74	10	--	--	60	4
Vestal	1-5	32	30	4	4	--	19	3
Whitman	K-2	42	23	2	--	--	21	--
TOTAL		758	906	332	25	9	446	94

*Non-Chapter I Schools

[1] The results for Edwards School were not included in the data interpretation because it is a year-round school and the number of days between the pre-test and post-test were not the same as the other schools.

TABLE 2

NUMBER AND FTE OF TEACHERS AND AIDES

IN HOSTS PROGRAMS

	TEACHERS		AIDES	
SCHOOL	NUMBER	FTE	NUMBER	FTE
Abernethy	1	.6	1	.35
Ball	1	.5	1	.25
Beach	1	.5	1	.25
Boise	1	.5	1	.25
Creston	1	.4	1	.2
Edwards	1	.5	2	.35
George	1	.5	1	.5
Grout	1	.9	1	.35
Hollyrood	1	.5	1	.25
Humboldt	1	.5	1	.25
James John	1	.5	1	.25
Kenton	1	.5	1	.35
King	1	.5	1	.5
Lane	1	.75	--	--
Lent	1	.35	3	.35
Marysville	1	.2	2	.45
Rice	1	.5	1	.2
Richmond	1	.4	1	.15
Rieke	1	.5	--	--
Sabin	1	.75	1	.25
Scott	1	.5	1	.25
Sitton	1	.5	2	.5
Vestal	1	.5	1	.25
Whitman	1	.4	1	.15
TOTAL	24	12.25	27	6.65

assistance. The information collected from the interviews was reviewed with the schools. HOSTS trainers were available on request during the year for school visitations.

The District HOSTS coordinator held two series of cluster meetings in 1982-83 to share ideas on teaching practices, recruiting volunteers, writing prescriptions, etc. In addition, a Teacher Inservice Credit workshop was held in November on HOSTS instructional practices. Finally, many staff attended a three-day HOSTS conference in Vancouver, Washington, in February.

TUTORS

A critical component of HOSTS is the use of tutors to instruct students on a one-to-one basis. Several pieces of information were collected about tutors, including the number and type of tutor, the amount of time tutor groups spent tutoring and tutor training.

Number and Type of Tutors

A total of 906 tutors were working in HOSTS when the schools were surveyed in April-May, 1983. This included 446 (49 percent) cross-age students, 332 (37 percent) community members, 94 (10 percent) teaching staff and aides, 25 (3 percent) college students and 9 (1 percent) hign school students. The total number of tutors who volunteered during the year was higher, but complete data are unavailable. These data indicate that nearly 40 percent of the volunteers were community members and 60 percent were resident students and staff.

Time Spent Tutoring

Time spent tutoring refers to the amount of time an individual or group volunteered to tutor per week. In this case, the evaluation wanted to determine the relative contribution made by each tutor group, i.e., community member, college student, high school student, cross-age student, and staff. Time was determined first by calculating the number of half-hour slots per week each school had in order to accommodate every HOSTS student with a tutor four days a week. For example, a HOSTS program which instructed 20 students for four days a week would have 80 slots (20 x 4 = 80 slots). Next, the

number and percent of slots each of the five tutor groups filled were determined. A final category was included for slots which were unassigned, i.e., no tutor was scheduled. Students who were not assigned a tutor for a given day were usually placed in small group instruction.

The results in Table 3 show that out of a total of 2,923 half-hour slots per week, 1,043 (36 percent) were filled by community members, 514 (18 percent) were filled by teaching staff and aides, 912 (31 percent) were filled by cross-age tutors, 117 (4 percent) were filled by college students, 40 (1 percent) were filled by high school students and 297* (10 percent) slots were not filled and students received small group instruction.

This is the second year that data have been collected on the number and percent of slots contributed by each tutor group. Overall, there have been no major changes in the number and/or percent of slots contributed by each group, with the possible exception of cross-age tutors. Cross-age tutors are filling relatively more tutoring spaces in 1983-84 than 1982-83; 31% to 21%.

When the amount of time contributed by cross-age tutors is added to that contributed by teaching staff and aides (which for the most part are people employed by Chapter I to work in HOSTS), we receive a total for tutors who come from within the schools. The total time contributed by tutors from within the schools is 49%, while the total time contributed by tutors outside the schools (community members, college and high school students) is 41%. Ten percent of the slots were unfilled.

It is difficult to interpret the volunteer and volunteer time data without a definition of volunteering and expectations of the amount of support desired from different groups. For example, it may be difficult to consider people from within the school as volunteers, since their time is either previously scheduled or otherwise compensated. It is important for schools to consider the sources of their tutors in conjunction with their expectations about tutor recruitment to determine if changes in recruiting need to be made.

*This figure is not representative of the District as a whole, because one school had 121 unfilled slots where students were assigned to small group instruction.

TABLE 3

NUMBER AND PERCENT OF SLOTS FILLED BY TUTOR GROUPS

SCHOOLS	Total Slots	Community Members		College Students		High School Students		Cross-Age Students		Teaching Staff & Aides		Unfilled	
		No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent
Abernethy	96	80	83	--	--	--	--	13	14	--	--	3	3
Ball	80	46	58	2	3	--	--	--	--	8	10	24	30
Beach	120	76	63	--	--	--	--	21	18	4	3	19	16
Boise	220	--	--	--	--	--	--	220	100	--	--	--	--
Creston	68	48	73	--	--	--	--	4	6	11	16	5	7
Edwards	68	63	93	--	--	--	--	--	--	5	7	--	--
George	144	23	16	--	--	--	--	112	78	3	2	6	4
Grout	132	60	45	--	--	8	6	10	8	51	39	3	2
Hollyrood	76	38	50	--	--	32	42	--	--	--	--	6	8
Humboldt	160	8	5	13	8	--	--	--	--	18	11	121	76
James John	84	10	12	--	--	--	--	72	86	2	2	--	--
Kenton	160	70	44	--	--	--	--	--	--	50	31	40	25
King	152	65	43	60	39	--	--	11	7	16	11	--	--
Lane	103	86	83	--	--	--	--	--	--	15	15	2	2
Lent	80	29	36	--	--	--	--	28	35	19	24	4	5
Marysville	164	62	38	--	--	--	--	33	20	60	37	9	6

TABLE 3 (CONT.)

NUMBER AND PERCENT OF SLOTS FILLED BY TUTOR GROUPS

SCHOOLS	Total Slots	Community Members		College Students		High School Students		Cross-Age Students		Teaching Staff & Aides		Unfilled	
		No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent	No. of Slots	Percent
Rice	72	17	24	20	28	--	--	--	--	35	49	--	--
Richmond	12	58	37	--	--	--	--	68	44	26	17	--	--
Rieke	64	37	58	--	--	--	--	13	20	14	22	--	--
Sabin	180	20	11	--	--	--	--	35	19	70	39	55	31
Scott	152	76	50	6	4	--	--	15	10	55	36	--	--
Sitton	140	30	21	--	--	--	--	85	61	25	18	--	--
Vestal	120	33	28	16	13	--	--	44	37	27	23	--	--
Whitman	136	8	6	--	--	--	--	128	92	--	--	--	--
TOTALS	2923	1043	36	117	4	40	1	912	31	514	18	297	10

*"Unfilled" represents the number of slots which did not have scheduled tutors. In most cases, students work on their HOSTS materials in small groups and, at times, students were tutored by a teacher or aide in the HOSTS program that was unscheduled at the time.

Tutor Training

A tutor training manual developed by HOSTS was provided to each school for use in training. All schools provided tutor training, ranging in time from a few minutes to three hours. Most schools conducted a Fall training session of 30-45 minutes followed by close supervision during initial tutoring sessions. HOSTS coordinators who supervised the program were always available for questions from tutors during the year.

EFFECTS OF HOSTS PROGRAM

The evaluation conducted to investigate the effects of the HOSTS program compared the achievement gains of Chapter I students who were in the HOSTS program with two different populations: 1) District Chapter I students; and 2) all District students. Next, the achievement growth of HOSTS students in 1983-84 was compared with their achievement growth in 1982-83. Student achievement was measured by the Comprehensive Test of Basic Skills, Form S; Primary B and C (grade 2); and the Portland Achievement Levels Tests (grades 3-8) in Fall and Spring of 1982-83 and 1983-84.

The District Chapter I program administers the Comprehensive Test of Basic Skills, Primary B and C, to grade 2 students for evaluation purposes because the PALT is not administered below grade 3. Primary B is administered in fall, and schools are given a choice of administering either Primary B and/or C in spring, depending upon their students' achievement levels.

The evaluation also investigated the relationship between student achievement and weeks in the program. Finally, the evaluation investigated the effect of tutoring on the cross-age tutors' own achievement. The data are presented in the following sections: grade 2; grades 3-8; the relationship between student achievement and weeks in the program; and the effect of tutoring on the tutors' own achievement.

GRADE 2

Table 4 shows the pre and post test means and gains for HOSTS, non-HOSTS, i.e., Chapter I students in the same grades and schools as HOSTS students but receiving other Chapter I reading instruction, and District Chapter I students in grade 2[1]. Data were collected from 19 HOSTS schools and 22 District Chapter I schools. All scores are based on matched fall/spring scores. Matched data were available for 172 of the 151 second grade HOSTS students. Results are expressed in terms of expanded scale score means and corresponding percentiles.

[1] Results in Table 4 reflect totals for students who took Primary B in Fall and Spring and for students who took Primary B in Fall and C in Spring. The procedure for converting the scores of students who took Primary B in Fall and Spring to in-level scores was to find their expanded scale score based on their raw score mean and convert the scale score to the corresponding raw score on Primary C. Percentiles were based on the average raw score.

TABLE 4

GRADE 2

FALL 1983 AND SPRING 1984 EXPANDED SCALE SCORE AND PERCENTILES

FOR HOSTS, NON-HOSTS AND DISTRICT CHAPTER I STUDENTS

SCORE	GROUP	N	FALL	SPRING	GAIN
Expanded Scale Score	HOSTS	172	251	305	54
	Non-HOSTS	39	253	295	42
	District/Chapter I	254	254	305	51
Percentile	HOSTS	172	18.7	36.7	18.0
	Non-HOSTS	39	19.6	30.3	10.7
	District/Chapter I	254	20.5	36.6	16.1

The results indicate that grade 2 HOSTS students made gains essentially equivalent to District Chapter I students and numerically, slightly larger than non-HOSTS students expressed in expanded scale scores and percentiles.

GRADES: 3-8

Achievement growth was measured by the difference in the fall and spring results of the PALT in reading and language usage. The expectation was that first year students would make larger gains in 1983-84, their HOSTS year, than in 1982-83, their non-HOSTS year. Data were included for students from twenty-two HOSTS schools who were in the program a minimum of 16 weeks. This represents half or more of the time between the beginning of school and the posttest date. Results for students in the program for less than sixteen weeks are not included in the tables but they are mentioned in this section of the report.

The results are reported in deviation scores, i.e., GROW and RATE scores for clear and intact groups. These terms are defined as follows:

1. Clear and intact groups include students who had fall and spring test scores for a given year (clear) and were enrolled at the same school in the fall and spring (intact). The deviation and GROW scores are based on clear and intact groups, while RATE scores are based on clear groups for each year.

2. Standard deviations are group statistics showing the deviation of a group RIT mean from the means of all RIT means in the District. RIT scores are equal interval, curriculum-based scores obtained from the PALT.

3. GROW is an index that represents the amount of achievement growth, based on clear and intact groups, in a given year. It shows the deviation of a group's fall to spring gain from the mean of all school mean gains for each grade-level group in the District. A GROW score of zero would indicate a gain equal to the mean gain of other groups.

4. RATE is an index that represents the change in the amount of achievement growth in 1983-1984 as compared with 1982-1983. It also is based on a comparison of the difference in means for a group with the differences for all groups at that grade level in the District. It shows the deviation of year to year groups' gain from the mean of all school mean gains for each grade-level group in the District.

   A RATE of zero would indicate a change in the rate of growth from one year to the next that is equal to the change in the rate of other groups.

The criteria for interpreting the GROW and RATE values are the same and shown in Table 5:

TABLE 5

Interpretation of GROW Values

	GROW Value	Interpretation
Less than average	-2.0 and below	Negative, significant
District growth	-2.0 to -1.7	Negative, approaching significance
(Fall to Spring)	-1.6 to -0.7	Negative, nonsignificant
	-0.7 to 0.7	Average District growth
Greater than average	0.7 to 1.6	Positive, nonsignificant
District growth	1.7 to 2.0	Positive, approaching significance
(Fall to Spring)	2.0 and above	Positive, significant

Interpretation of RATE Values

	RATE Value	Interpretation
Less growth in	-2.0 and below	Negative, significant
project than in	-2.0 to -1.7	Negative, approaching significance
pre-project year	-1.6 to -0.7	Negative, nonsignificant
	-0.7 to 0.7	Equal growth for two years
Greater growth in	0.7 to 1.6	Positive, nonsignificant
project than in	1.7 to 2.0	Positive, approaching significance
pre-project year	2.0 and above	Positive, significant

The results presented in Table 6 show the reading data in clear and intact, total group means for one-, two-, and three-year HOSTS students for 1982-83 and 1983-84. (See Appendix A for results presented by grades.) Results for one- and two-year Chapter I students are presented for comparison. Finally, results for one-year HOSTS students, who received Chapter I instruction in their pre-project year, 1982-83, are presented separately and for comparison. The grades 3-8 results are presented in three sections; deviation scores, GROW and RATE. The results are:

Fall and Spring Deviation Means

Overall, the fall and spring deviation means in Table 6 show HOSTS, Chapter I, and one-year HOSTS students who had Chapter I instruction the previous year, tend to be lower-performing students as indicated by standard deviations ranging frm about -2.50 to -3.50.

GROW

As mentioned previously, GROW represents the standardized amount of achievement gain in a given year. The 1983-84 GROW results show students who

were in the program for one year and who did not have Chapter I instruction the previous year, made growth in reading greater than the District average, which is positive nonsignificant. Students enrolled for two years also show growth in reading greater than the District average, but not significantly. Three-year HOSTS students show growth which is significantly greater than the District average. When the data from one-, two- and three-year students are combined, the results show students made growth in reading greater than the District average, which is positive nonsignificant.

One-year Chapter I students show growth in reading greater than the District average which is not significant. When compared to one-year HOSTS students, one-year Chapter I students made equivalent gains. Two-year Chapter I students show growth equivalent to the District's average. When compared to two-year HOSTS students, Chapter I students made numerically smaller gains; however, both of the mean gains are interpreted as equivalaent to the District average. When the data from one- and two-year Chapter I students are combined, the results show growth in reading equivalent to the District average.

One-year HOSTS students who received Chapter I instruction the previous year show growth in reading above the District average which is positive. This growth is slightly larger than that made by two-year HOSTS students who did not have Chapter I instruction the previous year and larger than the growth of two-year Chapter I students; however, the differences for both are not significant.

TABLE 6

Reading Standard Deviation Means, GROW and RATE, for
One-Year, Two-Year and Three-Year HOSTS Students,
One-Year and Two-Year Chapter I Students, and
Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
All Grades							
HOSTS							
One-Year	-2.36	-2.69	-3.27	-2.95	-0.88	0.96	1.80
	(25)	(25)	(106)	(106)	(25)	(106)	(25)
Two-Year	-3.50	-3.57	-3.42	-3.22	-0.17	0.69	0.14
	(36)	(36)	(45)	(45)	(36)	(45)	(32)
Three-Year	-3.57	-3.41	-3.59	-2.91	0.36	2.30	1.94
	(27)	(27)	(29)	(29)	(27)	(29)	(26)
Total	-3.20	-3.27	-3.36	-3.01	-0.21	1.11	1.20
	(88)	(88)	(180)	(180)	(88)	(180)	(83)
Chapter I							
One-Year	-2.53	-2.84	-2.91	-2.64	-1.05	0.83	1.54
	(395)	(395)	(590)	(590)	(395)	(590)	(286)
Two-Year	-3.25	-3.22	-3.09	-2.96	0.00	0.41	-0.02
	(1134)	(1134)	(1284)	(1284)	(1134)	(1283)	(831)
Total	-3.06	-3.12	-3.20	-3.02	-0.27	0.57	0.38
	(1529)	(1529)	(1774)	(1774)	(1529)	(1773)	(1117)
Chapter I/HOSTS							
One-Year Chap. I	-3.10	-3.23	-3.61	-3.20	-0.33	0.89	-0.72
One-Year HOSTS	(16)	(16)	(99)	(99)	(16)	(99)	(16)

RATE

As mentioned previously, RATE represents the change in the rate of growth from one year to the next. The results for students who were in the program for one year and who did not have Chapter I instruction the previous year show greater gains in the rate of growth in their project than the pre-project year which approached significance. Students enrolled in HOSTS for two years show equivalent gains in reading for two years, while three-year students made greater gains in the rate of growth in 1983-84 than 1982-83 which approached significance. When the data from the three HOSTS groups are combined, the results show greater gains in the rate of growth in reading during 1983-84 than 1982-83, but not at the accepted level of significance.

One-year Chapter I students show greater growth in reading in their project year than pre-project year, which is positive nonsignificant. When compared to one-year HOSTS students, Chapter I students show slightly smaller gains, but the difference is not significant. Students who received Chapter I instruction for two years made equivalent growth for two years. When compared to two-year HOSTS students, Chapter I students made equivalent growth. When the data for one- and two-year Chapter I students are combined, the results show the rate of growth in reading which has been equal over the last two years.

An insufficient amount of data are available to interpret findings on students who were enrolled in HOSTS for their first year and who received Chapter I instruction the previous year.

Table 7 provides a summary of the effectiveness of HOSTS over the last two years, 1982-83 and 1983-84[2]. During 1982-83, the rate of growth from the pre-project year to the project year for HOSTS students was positive nonsignificant in comparison to the average rate of growth for the District. For 1983-84, the HOSTS rate of growth was also greater than the District average to a degree which approached statistical significance.

2 Although HOSTS was also evaluated during 1981-82, 1981-82 Reading RATE Scores were not available for first year HOSTS students separately and, thus, could not be included in Table 7.

Table 7

Overall Effectiveness of HOSTS for
First-Year Students, 1982-83 and 1983-84, As Measured by RATE

	N	Less Growth in Project than Pre-Project Year (-1.6 to -0.7) Negative, Nonsignificant	Equal Growth for Two Years (-0.7 to 0.7)	Greater Growth in Project than Pre-Project Year (0.7 to 1.6) Positive, Nonsignificant	(1.7 to 2.0) Positive, Approaching Significance	(2.0 and above) Positive, Significant
Reading						
1982-83	73			X		
1983-84	25				X	

QUESTIONNAIRE SURVEY

A questionnaire on the use of the computers in HOSTS, especially for data managmeent, was sent to all 23 HOSTS coordinators in the spring of 1984. Responses were available from 22 coordinators. Table 8 shows the questions and the coordinators' responses to each.

A summary of the responses indicates that an overwhelming majority of the coordinators found the computer: (1) to facilitate better use of their time; (2) to reduce the amount of time, by one to four hours, spent on instructional planning; and (3) to be capable of being used in other ways to manage HOSTS, especially in terms of printing daily lesson plans and student profiles.

Coordinators were not in as much agreement in other areas. However, a majority indicated the computer: (1) did not change the amount of instructional time coordinators spent with students, probably because most coordinators completed their long-range lesson planning outside of their instructional time; and (2) provided a more accurate and complete long-range lesson plan once some of the bugs were eliminated. Twenty-five percent, however, indicated the computer did not provide a better plan.

A small majority of coordinators: (1) use the computer in ways other than for instruction and management, such as for a reward; and (2) indicated the computer made a difference in other areas of the program, such as program planning, tutor training and recruitment, and CAI instruction.

Finally, every coordinator except one stated they used the computer for HOSTS management, and a majority used it for one to two hours weekly. In addition, twelve HOSTS coordinators used the computer for instruction ranging from 1-20 hours per week; however, most used it five hours or less. The remaining coordinators did not use the computer for instruction.

TABLE 8

Survey Questions and Responses of Coordinators

Questions	Responses Yes	No	Yes/No	N.A.	Don't Know
1) Does the computer facilitate better use of your time?	18	2		2	
2) Has the computer changed the amount of time spent in long-range lesson planning?	19	1		2	
3) Has the computer changed the amount of instructional time you spend with students?	7	13		2	
4) Does the computer provide a more accurate and complete long-range lesson plan than you usually provided the previous year?	11	6	3	2	
5) Has the use of the computer made any difference in your work in other areas of the HOSTS prgram?	13	8			1 No answer
6) Could the HOSTS computer be used in other ways to manage your HOSTS program?	20		1		
7) Do you use the computer in ways other than for instruction or management within the HOSTS program?	12	10			

EFFECTS OF TUTORING ON THE CROSS-AGE TUTOR'S OWN ACHIEVEMENT

There were 533 students who tutored in HOSTS[1]. Most were enrolled in the school where they tutored, although a few middle school students traveled to neighboring HOSTS elementary school sites (Hosford, Beaumont, Fernwood, and Mt. Tabor). The student tutors ranged across grade levels three through eight. The range of hours cross-age students tutored was .5 to 4.0 hours per week, while the mode was one-half hour per week. Students tutored for a minimum of nine weeks.

A survey was conducted on how cross-age students were recruited, selected, and trained. In most cases, the HOSTS teacher requested students from classroom teachers who then selected students to be tutors. Usually, teachers referred students on the basis of average to above average academic performance, maturity and time availability. Once referred, almost all students were selected to become cross-age tutors; however, there were several instances where cross-age tutors were released during the year. Schools with cross-age students as tutors usually provided a one-hour training session at the beginning of the year. Most schools did not provide additional training of cross-age tutors after the fall training session; however, all provided supervision throughout the year.

Results

Tutor academic growth was measured in the same way as HOSTS students' growth, i.e., by the difference in fall and spring results of the PALT in reading. Reading was selected for evaluation since reading was the focus of HOSTS, and reading achievement scores were assumed to be the subject area most influenced.

1 This number differs from the number in Table 1, which refers to the number of tutors in a specific time period.

TABLE 9

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
All Grades							
One-Year	-0.15 (223)	-0.20 (223)	0.02 (273)	0.06 (273)	-0.26 (223)	0.17 (273)	0.36 (209)
Two-Year	-0.05 (90)	0.09 (90)	0.22 (89)	0.19 (89)	0.65 (90)	-0.13 (89)	-0.72 (87)
Total	-0.12 (313)	-0.12 (313)	0.07 (362)	0.09 (362)	0.00 (313)	0.09 (362)	0.04 (296)

The results presented in Table 9 show clear and intact, total group means. The grades 3-8 results are presented in three sections: Deviation Means, GROW and RATE. (See Appendix B for results presented by grade.) The results are:

Fall and Spring Deviation Means: Overall, the fall and spring deviation means in Table 9 show cross-age tutors tended to be average performing students in 1982-83 and 1983-84.

GROW: As mentioned previously, GROW represents the standardized amount of growth in a given year. The 1983-84 results show one-year, two-year and the total one- and two-year tutors show growth in reading equivalent to the District average. One-year, cross-age tutors made slightly larger gains than two-year, cross-age students, however, the difference is not significant.

RATE: As mentioned previously, RATE represents the change in the rate of achievement growth for one year to the next or for the project from the pre-project year. Cross-age students who tutored for one year show equivalent gains in the rate of growth over each of the last two years, while two-year students show smaller gains in the rate of growth in 1983-84 than in 1982-83, but it is nonsignificant. When the data for students who tutored for one and two years are combined, the results show equivalent gains in the rate of

growth over the last two years. When comparing one-year and two-year students, the growth from 1982-83 to 1983-84 is greater for one-year than for two-year students, but the difference is positive nonsignificant.

FINDINGS

1) Results from achievement records in twenty-two Portland elementary schools where HOSTS was used as a Chapter I or Chapter I-type supplementary program show that, overall, HOSTS gains are larger than the gains of all student groups at the same grade levels District-wide as shown by the rate of growth from one year to the next. There is some variation across different schools and grades, indicating that achievement gains are not uniform.

2) Students in both HOSTS and other Chapter I programs demonstrated achievement gains that were above the District average. In terms of our statistical interpretation, the achievement gains of HOSTS students in grades 3-8 were positive nonsignificant while those of all other Chapter I students were considered equal to the District average.

3) The gains of students enrolled for two years in HOSTS is only slightly less than the performances of one-year students, and slightly greater than the gains of two-year Chapter I students.

4) Students enrolled in HOSTS for three years showed progress greater than students enrolled in HOSTS for one year or two years, growth which was positive significant in comparison to the District average.

5) Results comparing the gains of Chapter I second grade students in HOSTS with gains of other District Chapter I second grade students and non-HOSTS Chapter I second grade students show the performances are essentially equivalent.

6) Cross-age student tutors account for half of the entire tutor population and almost one-third of the total amount of tutor time.

7) The achievement gains of cross-age student tutors show gains that are equivalent to those of all student groups at the same grade levels District-wide.

8) The computer, as used in HOSTS for management, was seen as an effective new component in data mangement of HOSTS.

RECOMMENDATIONS

1. HOSTS should be considered by schools as an option along with other District programs, particularly for Chapter I and perhaps other educationally disadvantaged students. Relative cost, curriculum materials, ease of operation, student interest, etc. should be taken into account.

2. One half of all HOSTS tutoring was performed by persons within the program schools, either cross-age students or teachers and aides. There is no demonstrated increase in the student tutors' reading achievement scores which can be attributed to tutoring, while the contribution by teachers and aides as HOSTS volunteers represents paid staff time. For these reasons, it is recommended that efforts be made to increase the percentage of HOSTS volunteers from the community especially in those schools where the in-school contribution is much higher than the average.

APPENDIX A

Tables Presenting Standard Deviation Means,
GROW and RATE of Growth
for HOSTS and Chapter I Participants by Grade

Table A.1

Reading Standard Deviation Means, GROW and RATE, for One-Year, Two-Year and Three-Year HOSTS Students, One-Year and Two-Year Chapter I Students, and Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 3							
HOSTS							
One-Year	-2.22	-2.92	-3.57	-3.42	-1.89	0.38	-0.59
	(15)	(15)	(52)	(52)	(15)	(52)	(1)
Two-Year	-3.67	-4.00	-2.18	-2.73	-0.88	-1.27	1.97
	(25)	(25)	(3)	(3)	(25)	(3)	(2)
Three-Year	-3.46	-3.40	-3.64	-2.38	0.13	2.95	2.35
	(15)	(15)	(3)	(3)	(15)	(3)	(2)
Total	-3.22	-3.54	-3.50	-3.33	-0.88	0.43	1.61
	(55)	(55)	(58)	(58)	(55)	(58)	(5)
Chapter I							
One-Year	-2.06	-2.68	-3.39	-3.04	-1.64	0.84	-0.59
	(77)	(77)	(143)	(143)	(77)	(143)	(1)
Two-Year	-3.12	-2.90	-3.40	-3.12	0.51	0.62	-1.40
	(299)	(298)	(294)	(297)	(298)	(297)	(11)
Total	-2.90	-2.85	-3.40	-3.09	0.07	0.69	-1.33
	(376)	(275)	(434)	(440)	(375)	(440)	(12)
Chapter I/HOSTS							
One-Year Chap. I	-2.99	-3.34	-3.82	-3.15	-0.94	1.60	--
One-Year/HOSTS	(9)	(9)	(75)	(75)	(9)	(75)	

Table A.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year, Two-Year and Three-Year HOSTS Students,
One-Year and Two-Year Chapter I Students, and
Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 4							
HOSTS							
One-Year	-2.58	-2.35	-3.21	-2.64	0.64	1.78	2.50
	(10)	(10)	(25)	(25)	(10)	(25)	(14)
Two-Year	-3.21	-2.65	-4.03	-3.66	1.62	1.19	1.58
	(10)	(10)	(26)	(26)	(10)	(26)	(19)
Three-Year	-4.05	-3.53	-3.83	-3.26	1.52	1.78	2.25
	(9)	(9)	(14)	(14)	(9)	(14)	(12)
Total	-3.25	-2.82	-3.67	-3.18	1.25	1.54	2.04
	(29)	(29)	(65)	(65)	(29)	(65)	(45)
Chapter I							
One-Year	-2.09	-2.50	-2.78	-2.57	-1.24	0.69	1.82
	(60)	(60)	(100)	(100)	(60)	(100)	(66)
Two-Year	-3.09	-2.97	-2.99	-2.80	0.35	0.67	-0.02
	(242)	(243)	(273)	(270)	(243)	(270)	(225)
Total	-2.89	-2.88	-2.93	-2.74	0.04	0.68	0.40
	(302)	(303)	(373)	(370)	(303)	(370)	(291)
Chapter I/HOSTS							
One-Year Chap. I	-3.25	-3.09	-3.39	-3.88	0.45	-1.49	-0.54
One-Year HOSTS	(7)	(7)	(15)	(15)	(7)	(15)	(9)

Table A.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year, Two-Year and Three-Year HOSTS Students,
One-Year and Two-Year Chapter I Students, and
Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 5							
HOSTS							
One-Year	--	--	-2.89	-2.25	--	2.22	1.05
			(26)	(26)		(26)	(10)
Two-Year	--	--	-2.71	-2.88	--	-0.58	-3.02
			(14)	(14)		(14)	(10)
Three-Year	--	--	-3.02	-2.82	--	0.68	-0.93
			(9)	(9)		(9)	(9)
Total	--	--	-2.86	-2.53	--	1.14	-0.96
			(49)	(49)		(49)	(29)
Chapter I							
One-Year	-2.83	-2.81	-2.46	-1.90	0.04	1.93	2.92
	(70)	(69)	(90)	(90)	(69)	(90)	(54)
Two-Year	-3.42	-3.39	-2.79	-2.65	0.09	0.46	0.11
	(164)	(163)	(238)	(238)	(163)	(238)	(195)
Total	-3.24	-3.22	-2.70	-2.44	0.08	0.86	0.69
	(234)	(232)	(328)	(328)	(232)	(328)	(259)
Chapter I/HOSTS							
One-Year Chap. I	--	--	-2.52	-2.55	--	-0.14	-0.96
One-Year HOSTS			(8)	(8)		(8)	(7)

Table A.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year, Two-Year and Three-Year HOSTS Students,
One-Year and Two-Year Chapter I Students, and
Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 6							
HOSTS							
One-Year	--	--	-1.69	-1.38	--	1.25	--
			(1)	(1)		(1)	
Two-Year	-2.14	-2.16	--	--	-0.20	--	--
	(1)	(1)			(1)		
Three-Year	-2.45	-3.32	--	--	-3.45	--	--
	(1)	(1)			(1)		
Total	-2.33	-2.74	-1.69	-1.38	-1.83	1.25	--
	(2)	(2)	(1)	(1)	(2)	(1)	
Chapter I							
One-Year	-2.45	-2.66	-2.58	-2.33	-0.72	1.03	0.98
	(71)	(71)	(88)	(88)	(71)	(88)	(56)
Two-Year	-3.50	-3.57	-2.99	-3.00	-0.23	-0.03	-0.48
	(184)	(184)	(162)	(161)	(184)	(161)	(130)
Total	-3.21	-3.32	-2.85	-2.76	-0.37	0.35	-0.04
	(255)	(255)	(250)	(249)	(255)	(249)	(186)
Chapter HOSTS							
One-Year Chap. I	--	--	0.03	-2.20	--	-8.80	--
One-Year HOSTS			(1)	(1)		(1)	

Table A.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year, Two-Year and Three-Year HOSTS Students,
One-Year and Two-Year Chapter I Students, and
Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 7							
HOSTS							
One-Year	--	--	-2.11	-4.78	--	-10.95	--
			(2)	(2)		(2)	
Two-Year	--	--	-2.19	-0.75	--	5.91	0.80
			(2)	(2)		(2)	(1)
Three-Year	-2.76	-3.05	-5.17	-2.45	-1.29	11.11	10.47
	(2)	(2)	(1)	(1)	(2)	(1)	(1)
Total	-2.76	-3.05	-2.75	-2.70	-1.29	8.97	5.64
	(2)	(2)	(5)	(5)	(2)	(5)	(2)
Chapter I							
One-Year	-2.92	-2.95	-3.00	-2.89	-0.23	0.46	1.81
	(60)	(61)	(95)	(95)	(61)	(95)	(58)
Two-Year	-3.20	-3.23	-3.20	-3.21	-0.15	0.19	0.17
	(156)	(156)	(171)	(171)	(156)	(170)	(145)
Total	-3.12	-3.15	-3.13	-3.10	-0.17	0.29	0.64
	(216)	(217)	(266)	(266)	(216)	(265)	(203)
Chapter HOSTS							
One-Year Chap. I	--	--	--	--	--	--	--

Table A.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year, Two-Year and Three-Year HOSTS Students,
One-Year and Two-Year Chapter I Students, and
Two-Year Chapter I/HOSTS Students by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 8							
HOSTS							
One-Year	--	--	--	--	--	--	--
Two-Year	--	--	--	--	--	--	--
Three-Year	--	--	-3.59	-1.93	--	7.85	8.31
			(2)	(2)		(2)	(2)
Total	--	--	-3.59	-1.93	--	7.85	8.31
			(2)	(2)		(2)	(2)
Chapter I							
One-Year	-2.95	-3.56	-2.96	-2.97	-2.65	-0.08	0.05
	(57)	(57)	(74)	(74)	(57)	(74)	(51)
Two-Year	-3.44	-3.90	-3.11	-3.06	-2.03	0.20	0.14
	(89)	(90)	(146)	(147)	(90)	(147)	(125)
Total	-3.25	-3.77	-3.06	-3.03	-2.27	0.11	0.11
	(146)	(147)	(220)	(221)	(147)	(221)	(176)
Chapter HOSTS							
One-Year Chap. I	--	--	--	--	--	--	--
One-Year HOSTS							

APPENDIX B

Tables Presenting Standard Deviation Means,
GROW and RATE of Growth
for One-Year and Two-Year Cross-Age Student Tutors by Grade

Table B.1

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 3							
TUTORS							
One-Year	-1.62	-1.05	0.05	-0.51	1.47	-1.29	--
	(19)	(19)	(14)	(14)	(19)	(14)	
Two-Year	0.66	0.72	--	--	0.14	--	--
	(4)	(4)			(4)		
Total	-1.22	-0.74	0.05	-0.51	1.23	-1.29	--
	(23)	(23)	(14)	(14)	(23)	(14)	

Table B.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 4							
TUTORS							
One-Year	-0.57	0.38	-1.06	-0.59	-0.59	1.47	0.14
	(69)	(69)	(23)	(23)	(69)	(23)	(19)
Two-Year	-1.34	-1.90	1.14	0.44	-1.70	-2.13	-1.82
	(8)	(8)	(5)	(5)	(8)	(5)	(4)
Total	0.37	0.15	-0.67	-0.41	-0.70	0.82	-0.19
	(77)	(77)	(28)	(28)	(77)	(28)	(23)

Table B.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 5							
TUTORS							
One-Year	-0.06	0.00	0.60	0.55	0.21	-0.21	0.25
	(42)	(42)	(80)	(80)	(42)	(80)	(64)
Two-Year	0.57	0.39	-1.71	-1.70	-0.63	0.01	1.60
	(9)	(9)	(8)	(8)	(9)	(8)	(8)
Total	0.05	0.07	0.39	0.34	0.06	-0.19	0.40
	(51)	(51)	(88)	(88)	(51)	(88)	(72)

Table B.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 6							
TUTORS							
One-Year	-0.65	-0.83	0.09	0.50	-0.75	1.64	1.05
	(34)	(34)	(47)	(47)	(34)	(47)	(41)
Two-Year	-0.09	0.51	0.12	0.77	1.65	2.59	2.73
	(22)	(22)	(9)	(9)	(22)	(9)	(9)
Total	-0.36	-0.31	0.09	0.54	0.19	1.80	1.36
	(56)	(56)	(56)	(56)	(56)	(56)	(50)

Table B.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 8							
TUTORS							
One-Year	--	--	-0.21	-0.34	--	-0.70	-0.41
			(71)	(72)		(72)	(56)
Two-Year	--	--	0.36	0.29	--	-0.39	-1.42
			(45)	(45)		(45)	(44)
Total	--	--	0.01	-0.10	--	-0.58	-0.85
			(116)	(117)		(117)	(100)

Table B.1 (continued)

Reading Standard Deviation Means, GROW and RATE, for
One-Year and Two-Year Cross-Age Student Tutors
by Grade

	Fall 1982	Spring 1983	Fall 1983	Spring 1984	GROW 1982-83	GROW 1983-84	RATE
Grade 7							
TUTORS							
One-Year	-0.30	-0.40	-0.25	-0.15	-0.49	0.52	1.24
	(59)	(59)	(38)	(37)	(59)	(37)	(29)
Two-Year	-0.07	0.12	0.45	0.38	0.87	-0.30	-1.38
	(47)	(47)	(22)	(22)	(47)	(22)	(22)
Total	-0.20	-0.17	0.01	0.05	0.11	0.21	0.11
	(106)	(106)	(60)	(59)	(106)	(59)	(51)

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